

USSN 09/923,825

Amendment dated 11/10/2005

Responding to Office Action of 08/10/2005

EXAMINER'S

IN THE CLAIMS:

AMENDMENT

WHAT IS CLAIMED IS:

1. (Currently Amended) A computerized method for guiding personnel servicing selected locomotive equipment from a group of generally similar locomotive equipment, with said selected locomotive equipment being made up of a plurality of systems and subject to unique locomotive configurations and servicing requirements, said selected equipment requiring repair while at an equipment work site, with the personnel being guided through a plurality of tasks for evaluating the health of the equipment to identify the nature and extent of service needed, and determining at least one preferred work site location accessible through a railroad network for performing the services based on technical and business decision-making criteria, said method comprising:

providing a database accessible from the equipment work site, the database comprising detailed data for health assessment and servicing of selected locomotive equipment, the database further comprising technical and business decision-making data regarding the service capabilities and availability, and costs of transportation to and servicing of equipment at available work sites for servicing the selected equipment;
providing a respective locomotive equipment configuration identifier for uniquely identifying the selected locomotive equipment from among the group of generally similar equipment;

configuring a servicing wizard for eliciting information regarding the identity and characteristics of the equipment to be repaired, providing instructions to the service personnel to determine the nature of the equipment fault and the servicing required for the equipment, and determining based on the technical and business decision-making criteria each preferred work site;

providing an portable input/output device at each work site for communicating with the database from a location adjacent the selected equipment to be serviced via a wireless communication connection;

USSN 09/923,825

Amendment dated 11/10/2005

Responding to Office Action of 08/10/2005

selecting the equipment to be serviced by communicating information indicative of the respective identifier for the selected equipment to the database through the portable input/output device;

accessing the database to interface with the servicing wizard for the selected equipment;

providing in response to a first set of prompts to the personnel from the servicing wizard at least one set of observations selected from the group comprising operational performance of the selected equipment and fault indications detected in the equipment, and further providing in response to a second set of prompts at least one set of technical and business decision-making criteria, including the cost and timeliness for performing services that may be required for the selected equipment and further providing a probabilistic estimation of whether a locomotive with the selected equipment can reach a respective work site before a road locomotive failure occurs as the locomotive travels on the railroad network; and

processing said observation information, and said technical and business decision-making criteria relative to the servicing wizard to determine whether or not the selected equipment needs to be serviced, and if so the nature and extent of that service, said processing further determining a preferred work site from among the available work sites at which to perform the service in accordance with the technical and business decision-making criteria.

2. (Original) The computerized method of claim 1 wherein each work site is connected to one another as a networked chain of sites.

3. (Original) The computerized method of claim 2 wherein the chain of work sites includes work sites managed by independent business entities.

4. (Original) The computerized method of claim 2 further comprising identifying servicing practices gathered from the chain of work sites and evaluating the value of such practices based on the technical and business decision-making criteria.

USSN 09/923,825

Amendment dated 11/10/2005

Responding to Office Action of 08/10/2005

5. (Original) The computerized method of claim 4 further comprising updating the database to include any preferred servicing practices gathered from the work sites to share uniformly high quality service practices across the work sites.

6. (Original) The computerized method of claim 1 further comprising accumulating in the database historical repair and/or service data, and including any diagnostics data for each respective equipment.

7. (Original) The computerized method of claim 6 further comprising assigning a computer-readable tracking identifier to each respective equipment so that service personnel may retrieve using the tracking identifier the historical data for any respective piece of equipment regardless of the location of the work site.

8. (Original) The computerized method of claim 6 further comprising performing analysis on the historical data so as to determine servicing trends as a function of any respective work site location.

9. (Currently Amended) A computerized system for guiding personnel servicing selected locomotive equipment from a group of generally similar locomotive equipment, with said selected locomotive equipment being made up of a plurality of systems and subject to unique locomotive configurations and servicing requirements, said selected equipment requiring repair while at an equipment work site, with the personnel being guided through a plurality of tasks for evaluating the health of the equipment to identify the nature and extent of service needed, and determining at least one preferred work site location accessible through a railroad network for performing the services based on technical and business decision-making criteria, said system comprising:

a database accessible from the equipment work site, the database comprising detailed data for health assessment and servicing of selected locomotive equipment,

USSN 09/923,825

Amendment dated 11/10/2005

Responding to Office Action of 08/10/2005

the database further comprising technical and business decision-making data regarding the service capabilities and availability, and costs of transportation to and servicing of equipment at available work sites for servicing the selected equipment;

a locomotive equipment configuration identifier for uniquely identifying the selected locomotive equipment from among the group of generally similar equipment;

a servicing wizard for eliciting information regarding the identity and characteristics of the equipment to be repaired, providing instructions to the service personnel to determine the nature of the equipment fault and the servicing required for the equipment, and determining based on the technical and business decision-making criteria each preferred work site;

an portable input/output device at each work site for communicating with the database from a location adjacent the selected equipment to be serviced via a wireless communication connection and selecting the equipment to be serviced by communicating information indicative of the respective identifier for the selected equipment to the database;

a database management module for accessing the database to interface with the servicing wizard for the selected equipment and provide in response to a first set of prompts to the personnel from the servicing wizard at least one set of observations selected from the group comprising operational performance of the selected equipment and fault indications detected in the equipment, and further providing in response to a second set of prompts at least one set of technical and business decision-making criteria, including the cost and timeliness for performing services that may be required for the selected equipment and further providing a probabilistic estimation of whether a locomotive with the selected equipment can reach a respective work site before a road locomotive failure occurs as the locomotive travels on the railroad network; and

a processor configured to process said observation information, and said technical and business decision-making criteria relative to the servicing wizard to determine whether or not the selected equipment needs to be serviced, and if so the nature and extent of that service, said processing further determining a preferred work

USSN 09/923,825

Amendment dated 11/10/2005

Responding to Office Action of 08/10/2005

site from among the available work sites at which to perform the service in accordance with the technical and business decision-making criteria.

10. (Original) The computerized system of claim 9 wherein each work site is connected to one another as a networked chain of sites.

11. (Original) The computerized system of claim 10 wherein the chain of work sites includes work sites managed by independent business entities.

12. (Original) The computerized system of claim 10 further comprising a processing module for identifying servicing practices gathered from the chain of work sites and evaluating the value of such practices based on the technical and business decision-making criteria.

13. (Original) The computerized system of claim 12 further comprising an updating module configured to update the database to include any preferred servicing practices gathered from the work sites to share uniformly high quality service practices across the work sites.

14. (Original) The computerized system of claim 9 further comprising a historical data accumulator for accumulating in the database historical repair and/or service data, and including any diagnostics data for each respective equipment.

15. (Original) The computerized system of claim 14 further comprising a computer-readable tracking identifier assigned to each respective equipment so that service personnel may retrieve using the tracking identifier the historical data for any respective piece of equipment regardless of the location of the work site.

USSN 09/923,825

Amendment dated 11/10/2005

Responding to Office Action of 08/10/2005

16. (Original) The computerized system of claim 14 further comprising an analyzer module configured to perform analysis on the historical data so as to determine servicing trends as a function of any respective work site location.